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Total Number of Pages in This Submission

19

Application Number

09/833,593

Filing Date

April 13, 2001

First Named Inventor

Martin P. Usher

Art Unit

2683

Examiner Name

B. J. Miller

Attorney Docket Number

11696.0059

### ENCLOSURES (Check all that apply)

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Fee Transmittal Form

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Fee Attached

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Amendment/Reply

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After Final

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Affidavits/declaration(s)

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Extension of Time Request

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Express Abandonment Request

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Information Disclosure Statement

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Certified Copy of Priority Document(s)

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Reply to Missing Parts/  
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Drawing(s)

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Licensing-related Papers

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Petition

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Petition to Convert to a  
Provisional Application

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Power of Attorney, Revocation

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### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name

Steptoe & Johnson LLP

Signature

Printed name

Scott D. Watkins

Date

June 12, 2007

Reg. No.

36,715

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UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of

Applicant: Martin P. USHER et al.

Group Art Unit: 2683

Serial No.: 09/833,593

Examiner: B. J. Miller

Filed: April 13, 2001

For: CELLULAR RADIO SYSTEM

AMENDED APPEAL BRIEF

Commissioner of Patents  
Customer Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Dear Sir:

Further to applicant's Notice of Appeal filed on November 20, 2006, and further to the Office Action of May 25, 2007, herein follows Applicant's Revised Appeal Brief for the above-captioned case.

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I. REAL PARTY IN INTEREST

Stratos Global Ltd., 3 Finsbury Square Moorgate, London, UK, whose ownership interest appears in an Assignment recorded November 7, 2001 at Reel 012136, Frame 0944.

II. RELATED APPEALS AND INTERFERENCES

Stratos Global Ltd. is the owner of a patent application 10/069,100, currently pending on appeal. The disclosures of the two applications have overlapping subject matter, but the claims are directed to different aspects of call diversion technology. The proceedings and/or outcome of each appeal should therefore not have any bearing on the other.

III. STATUS OF CLAIMS

The application was originally filed with twelve (12) claims. An Amendment under 37 C.F.R. §1.111 was filed on May 3, 2004 in response to an Office Action mailed November 12, 2003 in which claims 1-12 were cancelled and new claims 13-30 were added. An Amendment under 37 C.F.R. §1.116 was filed on December 6, 2004 in response to an Office Action mailed July 15, 2004, in which no claims were amended, added or cancelled. An Office Action dated February 15, 2005 allowed claims 13-14 and 26-30, rejecting only claim 25. By Amendment dated May 18, 2005, Applicants cancelled the sole rejected claim 25. A Notice of Allowance was issued on June 7, 2005.

On August 29, 2005, Applicants filed a Request for Continued Examination which included a submission of additional prior art via Information Disclosure Statement and added claims 31-36 by Preliminary Amendment. By Office Action dated November 16, 2005, claims 13-24 and 26-30 were again allowed, and claims 31-36 were rejected. An Amendment under 37

C.F.R. §1.111 was filed on December 5, 2005, in which no claims were amended, added, or cancelled. By Office Action dated February 8, 2006, claims 13-24 and 26-30 were again allowed, and claims 31-36 were rejected. By an Amendment dated March 16, 2006, claims 31 and 34 were amended. By Office Action dated June 6, 2006, claims 13-24 and 26-30 were again allowed, and claims 31-36 were rejected. By an Amendment dated August 15, 2006, no claims were added, cancelled or amended. An Advisory Action dated August 30, 2006 refused to withdraw the pending rejections. This appeal followed.

Thus, the claims on appeal are claims 31-36, the text of each of which appears in the Appendix attached to this Brief.

#### IV. STATUS OF AMENDMENTS

As indicated in part III above, all of Applicants' amendments have been entered.

#### V. SUMMARY OF CLAIMED SUBJECT MATTER

The subject matter of the claims on appeal is for routing incoming calls. More specifically, the claims on appeal recite considering a telephone associated with a telephone number as busy, regardless of an actual state of the telephone (*e.g.*, whether it is actually busy or not) and regardless of a source of an incoming telephone call (*e.g.*, regardless of where the call originates). During this period, incoming calls are diverted consistent with divert on busy instructions associated with said telephone number. Support for the claimed subject matter can be found, *e.g.*, at page 15, lines 18-29 and Fig. 7 of the application. A specific mapping of non-limiting disclosure to independent claim 31 (the only claim on appeal) is as follows:

Claim 31	Exemplary support in 09/833,593
<p>31. A method for forwarding incoming telephone communications, comprising:</p> <p>considering a state of a telephone associated with a telephone number as busy, regardless of an actual state of the telephone and regardless of a source of an incoming telephone call;</p> <p>during said considering, diverting said incoming call based on divert on busy instructions associated with said telephone number.</p>	<p>Pg 15, lns.1-7: "The interface unit 48 passes the AES code to a call diversion instruction unit 46, which generates a 'divert on busy' instruction to the VLR 44 (step 615). This is a standard divert arrangement, and operates such that should the mobile unit appear to be already engaged on a call when a new call attempt is made to it, the new call attempt is diverted to a specified directory number, in this case the AES code allocated to the mobile unit. This diversion instruction replaces any previous instruction held in the VLR 44."</p> <p>Pg 15, lns. 18-29: "When a call attempt is made (step 701), the MSC in the home network 7 to which the call is initially routed obtains from the HLR 71 the current location of the mobile telephone (step 702), and on receiving the identity of the host MSC 41, directs the call there (step 703). The host MSC 41 in turn attempts to transmit the call attempt to the currently serving base station, which is in fact the interface unit 46 (step 704). If the disconnect procedure (to be described later with reference to FIG. 7) has been carried out, the call will fail (step 705) and a signal is transmitted back to the home MSC 71. Otherwise, the interface unit 46 automatically returns a 'busy' signal to any such request (step 706). Note that the interface unit 46 has no information regarding the true operating state of the mobile unit 10. It is merely arranged to emulate the target mobile unit's response to a call attempt when the target mobile unit is in the 'busy' condition."</p> <p>Pg 15, ln.30- pg.16, ln. 4: "The host MSC 41, on receiving the 'busy' signal, checks whether any incoming call currently in progress to that mobile handset has already been diverted (step 707). (This is a standard procedure, done to ensure that call diversions are not attempted if they will not actually succeed). If there is no such diverted call in progress, the host MSC 41 retrieves the diversion information (the AES) from the VLR 44 (step 708) allowing it to route the call through the PSTN 8 and the satellite system 3 to the onboard system 1 (step 710)."</p>

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The final Office Action mailed June 6, 2006 stated the following rejections:

1. Claims 31-34 have been rejected under 35 U.S.C. § 103 as obvious over Warburton in view of Martensson.

2. Claims 35 and 36 have been rejected under 35 U.S.C. § 103 as obvious over Warburton in view of Martensson and Kraft.

Applicant requests review and reversal of the above rejections of claims 31-36.

VII. ARGUMENT

A. Claims 31-34 are Patentably Distinct over Warburton in view of Martensson.

Independent Claim 31 (the only independent claim of the rejected claims) recites “considering a state of a cellular telephone associated with the cellular telephone number as busy, regardless of an actual state of the cellular telephone and regardless of a source of an incoming telephone call.” (emphasis added). As the Examiner conceded during prosecution, the primary reference of Warburton does not disclose considering a state of the telephone as busy regardless of a source of the incoming call as recited in claim 31. (June 6, 2006 Office Action at page 2.) The Examiner accordingly turned to Martensson as allegedly providing the missing teachings.

Martensson teaches that a user can select numbers in a telephone directory and set the phone to a busy state only in response to an incoming call from pre-identified telephone numbers; it does not block incoming calls from other numbers. For example, suppose that a user of the Martensson device has an old girlfriend and a new girlfriend. Not wanting to speak with the old girlfriend, he uses the Martensson methodology to block all phone numbers (mobile,

work, home) for the old girlfriend. In contrast, none of the phone numbers for the current girlfriend are blocked. If the old girlfriend calls from one of the blocked numbers, then the Martensson methodology would respond with a busy signal. Yet if the new girlfriend calls, the call goes through to the phone as it normally would. Whether Martensson blocks the call or lets the call through is based solely on the source of the incoming call.

The combination of Warburton and Martensson would not alter this operation. Thus, such combination would, as discussed above, blocks some calls (by setting the phone to busy) and allow some calls to go through based solely on the source of the incoming call. Paralleling the claim language, the combination of Warburton and Martensson would at best consider a state of a telephone associated with a telephone number as busy dependent upon the source of an incoming telephone call in particular the originating phone number. This is the exact opposite of the claim language, which calls for considering a state of a telephone associated with a telephone number as busy regardless of the source of an incoming telephone call.

The Examiner does not appear to contest the above rationale regarding the deficiencies of the references, or the underlying distinction between the claimed subject matter and the applied references. Rather, the Examiner has taken the position that the “telephone number of the incoming call” is not the “source of the incoming call” as recited in claim 31. With all respect to the Examiner, this position defies common sense. The telephone number of the incoming call is technologically the identification code for the source of the call. By way of example, Caller ID technology identifies a source of an incoming call by converting the telephone number into a name associated with that number, thereby identifying the source of the call. In such a context, a telephone number is clearly a non-limiting example of a “source” of an incoming call as claimed.



Indeed, the Examiner has taken inconsistent positions, stating in the Advisory Action that “[t]he term source is being interpreted broadly” to justify the combination of Warburton and Martensson. It would seem self-evident that a telephone number would be considered a classic source of an incoming call under such a “broad” definition of source as the Examiner proposes. The Examiner cannot use a broad definition of “source” to justify a combination of references and simultaneously use some (unexplained) narrower definition of “source” to ignore clear teachings within those references.

It is accordingly clear that the combination of Warburton and Martensson does not show the combination of elements as recited in claim 31, and particularly the “regardless of a source of an incoming telephone call”. Claim 31 is therefore patentably distinct over the applied art. Reversal of the rejection is therefore requested.

Claims 32 and 33, which depend from claim 31, have also been rejected under 35 U.S.C. § 103 as obvious over Warburton in view of Martensson. For purposes of this appeal, the status of claims 32-33 can be considered to rise and fall with claim 31. Thus, for the reasons discussed above, dependent claims 32-33 are likewise patentably distinct over the prior art. Reversal of the rejection is therefore requested.

Claim 34, which depends from claim 31 through claim 32, additionally recites “associating, in response to said request, a primary diversion instruction with the telephone number.” The Examiner concedes that limitation is completely missing from both of the applied references. (June 6, 2006 Office Action at pg. 3-4). The Examiner nonetheless declares that the noted feature of claim 34 is obvious because “it would allow for improved function setting mode of a portable telephone.” *Id.* Applicants submit that this unsupported conclusion lacks any and all foundation in the accepted principles of obviousness rejections. Under the Examiner’s

rationale, any improvement over the prior art is obvious and not patentable because it is an improvement.

In addition, claim 34 recites the step of considering is in response to a request, and that the association of the primary diversion instruction is responsive (be it directly or indirectly) to that request. The call forwarding methodology of Warburton triggers in response to entry of a specific code, but there is no teaching or suggestion that the code also triggers a state of considering a telephone as busy. Martensson is responsive to yet a different request. Even if the two were combined, the result would be a phone system with two separate features working off of two separate request commands. The Examiner's sole response to this argument is the single statement: "Regarding claim 34, Martensson teaches a request to make the state of a telephone be considered as busy." (*Id.* at pg. 5) This observation completely fails to address how Warburton is going to be combined with such a feature of Martensson in view of how the two systems rely upon different requests.

For the above reasons, it is clear that the Examiner has failed to put forth a fair basis for the rejection of claim 34. Reversal of this rejection is therefore respectfully requested.

B. Claims 35 and 36 are Patentably Distinct over Warburton in view of Martensson and Kraft.

Claims 35 and 36, which depend on claim 31 through claim 34, have been rejected under 35 U.S.C. § 103 as obvious over Warburton in view of Martensson and Kraft. For the reasons noted above, both claims 31 and 34 are patentably distinct over the combination of Warburton and Martensson, such that claims 35 and 36 are patentably distinct over that combination for at least the reasons discussed above. The addition of Kraft, cited for changing of divert on busy

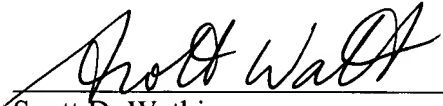
instructions, does not provide what is lacking from the above references and therefore does not alter that conclusion. Reversal of the rejection of claims 35 and 36 is therefore requested.

VIII. CONCLUSION

As demonstrated above herein, the applied references are inadequate, individually and collectively, as bases for rejection of any of claims 31-36. Reversal of the stated rejections of those claims and allowance of all claims are respectfully requested.

The PTO is hereby authorized to charge/credit any fee deficiencies or overpayments to Deposit Account No. 19-4293 (Order No. 11696.4014).

Respectfully submitted,

  
\_\_\_\_\_  
Scott D. Watkins  
Reg. No. 36,715

June 12, 2007  
Steptoe & Johnson LLP  
1330 Connecticut Ave., N.W.  
Washington, DC 20036  
(202) 429-3000

## APPENDIX

### CLAIMS ON APPEAL

13. A method for forwarding incoming cellular communications to an aircraft, comprising:

receiving a request to divert incoming calls for a cellular telephone number to a communication system on board an aircraft, the request including at least a temporary identification code representing a cellular telephone aboard the aircraft;

associating a diversion instruction with the cellular telephone number, the diversion instruction representing an instruction to forward an incoming call for the cellular telephone number to the communications system aboard the aircraft; and

considering a state of a cellular telephone associated with the cellular telephone number as busy, regardless of an actual state of the cellular telephone;

wherein, an incoming telephone call to the cellular telephone number is forwarded, consistent with said considering and in accordance with the diversion instruction, to the communications system on board the aircraft.

14. The method of claim 13, wherein said associating a diversion instruction comprises giving priority to an address of the communications system on board the aircraft over any previous diversion instruction.

15. The method of claim 13, wherein the communication system on board the aircraft is a communication device in wireless communication with the cellular telephone aboard the aircraft.

16. The method of claim 13, wherein said associating a diversion instruction comprises modifying a preset diversion instruction associated with the cellular telephone to include the communication system on board the aircraft.

17. The method of claim 13, further comprising:

receiving an incoming call for the cellular telephone number; and

forwarding the incoming call to the communication system on board the aircraft.

18. The method of claim 13, the cellular telephone having at least one original diversion instruction prior to said associating a diversion instruction, the method further comprising:

receiving an incoming call for the cellular telephone number;

diverting, in response to an actual state of the cellular telephone being busy, the incoming call consistent with the at least one original diversion instruction.

19. A method for routing incoming cellular telephone traffic through a land-based host network to a cellular device user aboard an aircraft, the cellular device user having an associated cellular telephone number, comprising:

receiving, at the host network, a request to register the presence of the cellular device user aboard the aircraft, the request including at least a temporary identification code representing a cellular telephone aboard the aircraft;

the host network advising the cellular device user's home network that the cellular device user is within the operating jurisdiction of the host network;

associating, at the host network, a primary divert on busy instruction with the cellular telephone number, the divert on busy instruction representing an instruction to divert an incoming call to a communication system on board the aircraft; and

considering a current operational state associated with the cellular telephone number as busy, regardless of an actual operational state of the cellular device;

wherein, upon receipt of an incoming call to the cellular telephone number, the host forwards an incoming call to the communication system on board the aircraft consistent with the primary divert on busy instruction.

20. The method of claim 19, wherein said associating a primary divert on busy instruction comprises giving an identifier of the communication system on board the aircraft priority over any preset divert on busy instruction.

21. The method of claim 19, wherein the communication system on board the aircraft is a communication device wirelessly coupled with the cellular device aboard the aircraft.

22. The method of claim 19, wherein said associating the primary divert on busy instruction comprises modifying preset diversion instructions associated with the cellular telephone to include the communication system on board the aircraft.

23. The method of claim 19, further comprising:

receiving an incoming call for the cellular telephone number; and

forwarding the incoming call to the communication system on board the aircraft.

24. The method of claim 19, the cellular device having at least one original divert on busy instruction prior to said associating a primary divert on busy instruction, the method further comprising:

receiving an incoming call for the cellular telephone number; and

diverting, in response to an actual state of the cellular telephone being busy, the incoming call consistent with the at least one original divert on busy instruction.

25. (Canceled)

26. A method of registering to divert a telephone call to a cellular telephone on-board a vehicle, the method comprising:

receiving first and second identification information, the first identification information being identifying the cellular telephone and the second information representing a temporary identification code assigned to the cellular telephone device;

associating modified divert on busy instructions with the cellular telephone; and

setting an indication of a status of the cellular telephone as busy regardless of an actual status of the cellular telephone.

27. The method of claim 26 further comprising:

receiving a telephonic call intended for the cellular telephone;  
diverting the telephonic call to the cellular device on-board the vehicle consistent with a modified divert on busy instruction.

28. The method of claim 26, wherein said receiving, associating and setting occur at a host network, the cellular device is associated with a home network different from the host network, and said method further comprising advising the home network that the cellular telephone is roaming within the coverage of the host network.

29. A method of receiving a telephone call placed to a cellular telephone that is aboard a vehicle, the method comprising:

receiving a call forwarded from a home network, the call being placed to the cellular telephone;

returning a busy signal for the cellular telephone regardless of an actual state of the cellular telephone;

accessing a divert-on-busy instruction for the cellular telephone; and

forwarding the call to the cellular telephone consistent with said accessing.

30. The method of claim 29, wherein the cellular telephone is associated with the home network, said method further comprising advising the home network that the cellular device is roaming on a host network.

31. A method for forwarding incoming telephone communications, comprising:



considering a state of a telephone associated with a telephone number as busy, regardless of an actual state of the telephone and regardless of a source of an incoming telephone call;

during said considering, diverting said incoming call based on divert on busy instructions associated with said telephone number.

32. The method of claim 31, further comprising:

receiving a request to divert incoming calls for said telephone number; and

said considering is in response to said receiving.

33. The method of claim 32, wherein said request identifies one of a location, a communication system, or a telephone number that incoming calls are to be directed to.

34. The method of claim 32, further comprising:

said considering being in response to a request;

associating, in response to said request, a primary diversion instruction with the telephone number.

35. The method of claim 34, further comprising modifying any existing divert on busy instructions associated with said telephone number to accommodate said primary diversion instruction.

36. The method of claim 34, wherein said primary divert instruction supersedes any existing divert on busy instructions.

## EVIDENCE APPENDIX

No evidence was submitted in this application pursuant to any of 37 C.F.R. §§1.130, 1.131, or 1.132.

### RELATED PROCEEDINGS APPENDIX

The related appeal has not received any decision which would be included with the instant appeal.